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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,839	09/17/2003	Sung Uk Moon	242923US90	2705
22850 7590 03/19/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER WENDELL, ANDREW	
			ART UNIT	PAPER NUMBER
			2618	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		03/19/2007	ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/19/2007.

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patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/663,839	<b>Applicant(s)</b> MOON ET AL.	
	<b>Examiner</b> Andrew Wendell	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Famolari et al. (US Pat Appl# 2002/0191567) in view of Beckmann et al. (US Pat Appl# 2003/0022683) and further in view of Lo et al. (US Pat# 6,122,483)

Regarding claim 1, Famolari et al. system for soft handoff teaches a radio communication system having base stations 4 and 4' (Fig. 2) and mobile stations 2 and 2' (Fig. 2), to perform multicast communication (Sections 0014-0015), wherein the mobile station comprises a response signal transmitter configured to transmit a response signal including a group ID identifying a multicast group to the base station (Section 0054), the response signal responding to a control signal for the multicast group which the mobile station is joining in (Sections 0054 and 0055); and the base station comprises a response signal transmitter configured to transmit at least one response signal to the multicast agent, the at least one response signal being selected from at least one response signal transmitted from mobile stations joining in the same multicast group (Sections 0054-0055). Famolari et al. fails to teach a radio network controller and a response signal holder.

Beckmann et al. transmitting multicast messages in a radio system, and correspondingly designed radio system, transmitter and receiver teaches a radio communication system having a radio network controller RNC (Fig. 1), base stations BS (Fig. 1) and mobile stations UE 1-5 (Fig. 1), to perform multicast communication (Sections 0005-0006).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a radio network controller as taught by Beckmann et al. into Famolari et al. multicast system in order to transmit multicast messages reliably and securely with little expenditure (Section 0004).

Famolari et al. and Beckmann et al. fail to teach a signal holder.

Lo et al. apparatus for multicast messaging in a public satellite network teaches a response signal holder configured to hold the at least one response signal for a predetermined duration (Col. 9 lines 9-12).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a signal holder as taught by Lo et al. into a radio network controller as taught by Beckmann et al. into Famolari et al. multicast system in order to minimize the consumption of valuable channel resources (Col. 2 lines 15-19).

Regarding claim 3, Famolari et al. teaches a base station 4 and 4' (Fig. 2) supporting multicast communication (Sections 0035-0036), the base station comprising a response signal transmitter configured to transmit at least one response signal to the multicast agent, the at least one response signal responding to a control signal for a

multicast group and being selected from at least one response signal transmitted from mobile stations joining in the same multicast group (Sections 0054-0055). Famolari et al. fails to teach a radio network controller and a signal holder.

Beckmann et al. teaches a base station BS (Fig. 1) supporting multicast communication (Section 0064), the base station comprising a response signal transmitter configured to transmit at least one response signal to the radio network controller RNC (Fig. 1 and Section 0067).

Famolari et al. and Beckmann et al. fail to teach a signal holder.

Lo et al. apparatus for multicast messaging in a public satellite network teaches a response signal holder configured to hold the at least one response signal for a predetermined duration (Col. 9 lines 9-12).

Regarding claim 5, Lo et al. further teaches wherein the response signal holder holds the at least one response signal for a predetermined duration after the first reception of the at least one response signal (Col. 9 lines 9-12).

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Famolari et al. (US Pat Appl# 2002/0191567) in view of Jellema et al. (US Pat# 6,707,900).

Regarding claim 6, Famolari et al. system for soft handoff teaches a radio communication system having base stations 4 and 4' (Fig. 2) and mobile stations 2 and 2' (Fig. 2), to perform multicast communication (Sections 0014-0015) wherein the mobile station comprises a response signal transmitter configured to transmit a response signal including a group ID identifying a multicast group to the base station, the response signal responding to a control signal for the multicast group which the

mobile station is joining in (Section 0054). Famolari et al. fails to teach a response signal counter and transmitter and judger.

Jellema et al. dynamic load limiting teaches a response signal counter configured to count the number of response signals 24 (Fig. 2) transmitted from mobile stations joining in the same group; a judger configured to judge whether the counted number of response signals is more than a predetermined number or not 26 (Fig. 2); and a response signal transmitter configured to transmit at least one response signal to the radio network controller, when the counted number of response signals is more than the predetermined number (Fig. 2 and Col. 2 lines 60-67).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a response signal counter and transmitter and judger as taught by Jellema et al. into Famolari et al. multicast system in order to avoid overloaded conditions and have a more efficient system (Col. 1 lines 22-30).

4. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jellema et al. (US Pat# 6,707,900) in view of Famolari et al. (US Pat Appl# 2002/0191567).

Jellema et al. dynamic load limiting teaches a base station comprising a response signal counter configured to count the number of response signals 24 (Fig. 2) to a control signal for a group, the response signals being transmitted from mobile stations joining in the same group; a judger configured to judge whether the counted number of response signals is more than a predetermined number or not 26 (Fig. 2); a

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response signal transmitter configured to transmit at least one response signal to a radio network controller, when the counted number of response signals is more than the predetermined number (Fig. 2 and Col. 2 lines 60-67). Jellema et al. fails to teach a base station supporting multicast communication.

Famolari et al. system for soft handoff teaches a base station supporting multicast communication (Sections 0035-0036).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a base station supporting multicast communication as taught by Famolari et al. into Jellema et al. dynamic load limiting in order to add new multicast addresses, reducing caching at the mobile terminal, and increase the probability of locating the mobile terminal (Sections 0021-0022).

Regarding claim 8, the combination including Jellema et al. teaches wherein the response signal transmitter notifies that the counted number of response signals is more than the predetermined number, or the counted number of response signals to the radio network controller (Fig. 2).

5. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jellema et al. (US Pat# 6,707,900) in view of Beckmann et al. (US Pat Appl# 2003/0022683).

Jellema et al. dynamic load limiting teaches a receiver configured to receive response signals transmitted from base stations 22 (Fig. 2); a extractor configured to extract information showing that the number of received response signals is more than

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a predetermined number from the received response signals 24-26 (Fig. 2); and a radio controller configured to perform radio controlling in communication in accordance with the extracted information (Fig. 2 and Col. lines 60-67). Jellema et al. fails to teach a radio network controller supporting multicast communication.

Beckmann et al. transmitting multicast messages in a radio system, and correspondingly designed radio system, transmitter and receiver teaches a radio network controller supporting multicast communication (Fig. 1 and Section 0064).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a radio network controller supporting multicast communication as taught by Beckmann et al. into Jellema et al. dynamic load limiting in order to transmit multicast messages reliably and securely with little expenditure (Section 0004).

Regarding claim 10, Jellema et al. teaches a receiver configured to receive response signals transmitted from base stations 22 (Fig. 2); an extractor configured to extract information showing that the number of received response signals 24-26 (Fig. 2); and a radio controller configured to perform radio controlling in communication in accordance with the extracted information (Fig. 2 and Col. lines 60-67). Jellema et al. fails to teach a radio network controller supporting multicast communication.

Beckmann et al. transmitting multicast messages in a radio system, and correspondingly designed radio system, transmitter and receiver teaches a radio network controller supporting multicast communication (Fig. 1 and Section 0064).



***Response to Arguments***

Applicant's Remarks	Examiner's Response
<p>Regarding claims 1 and 3, "For example, Famolari and Beckmann fail to teach or suggest a base station that holds at least one response signal for a predetermined duration before transmitting it to the radio network controller."</p>	<p>Examiner stated in the office action that Famolari and Beckmann fail to teach holding a signal for a predetermined duration. Lo is used to teach holding a signal for a predetermined duration.</p>
<p>Regarding claims 1 and 3, "However, Applicants respectfully submit that Lo fails to teach or suggest that a response signal holder of a base station is configured to hold a response signal, and Lo also fails to teach or suggest holding at least one response signal received from a mobile station, as required by claims 1 and 3."</p>	<p>Lo was used to just teach holding a signal for a predetermined duration. The device holding the signal is part of a multicast communication system and it is a transceiver which similar to a base station and applicant's invention. Famolari and Beckmann teach a base station and receiving a response signal from a mobile station.</p>
<p>Regarding claims 6 and 7, "For example, Jellema and Famolari fail to teach or suggest a base station that sends a message to a radio network controller under a condition that a number of</p>	<p>It is clearly taught in Jellema that the base station (service switching point) sends a message to the radio network controller (service control point) when the number of calls are greater than a predetermined</p>

messages sent from mobile stations to the base station is greater than a predetermined number.”	number (Col. 2 lines 33-53). The SCP has to get a message from the SSP in order for it to send instructions to the SSP to change a parameter.
Regarding claims 6 and 7, “Further, Applicants respectfully submit that Jellema also fails to teach or suggest the claimed “response signal.””	Examiner believes applicant is reading more into the claim than is present. The claim only calls for a response signal. Any message that the mobile phone sends to the base station can be considered a response signal. Plus, Famolari clearly teaches a response signal from a mobile station (Section 0054)
Regarding claim 9, “Thus, according to Jellema, when a predetermined number of call attempts is more than a predetermined number, the SSP does not send anything, which is very different than the invention of Claim 9 in which an extractor is configured to extract information showing that a number of received response signals is ore than a predetermined number.”	See the first response to claims 6 and 7. There is an interaction going on between the SSP and SCP.
Regarding claim 10, “As discussed above,	See the above response.

according to Jellema, when a predetermined number of call attempts is more than a predetermined number, the SSP does not send anything to the SCP, which is very different than the invention of Claim 10 in which response signals are received from base stations, a number of received response signals is extracted from the received response signals, and radio controlling is performed based on the extracted number of response signals."	
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***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

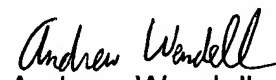
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Andrew Wendell  
Examiner  
Art Unit 2618

3/6/2007

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER